

**TRANSLATION**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>9248M WO JB</b>	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. <b>PCT/EP2004/010089</b>	International filing date ( <i>day/month/year</i> ) <b>10.09.2004</b>	Priority date ( <i>day/month/year</i> ) <b>20.09.2003</b>	
International Patent Classification (IPC) or national classification and IPC <b>B60C23/00, F02B37/24</b>			
Applicant <b>DEERE &amp; COMPANY</b>			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <b>6</b> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>
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Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/EP2004/010089

## Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 

This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
 
  - international search (Rule 12.3 and 23.1(b))
  - publication of the international application (Rule 12.4)
  - international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
 

the international application as originally filed/furnished  
 the description:  
 pages 1-17 \_\_\_\_\_ as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 the claims:  
 nos. 1-33 \_\_\_\_\_ as originally filed/furnished  
 nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19  
 nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 the drawings:  
 sheets 1/3-3/3 \_\_\_\_\_ as originally filed/furnished  
 sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3.  The amendments have resulted in the cancellation of:
 

the description, pages \_\_\_\_\_  
 the claims, nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 

the description, pages \_\_\_\_\_  
 the claims, nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/EP2004/010089

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

## 1. Statement

Novelty (N)	Claims <u>1–33</u>	YES
	Claims _____	NO
Inventive step (IS)	Claims <u>13, 15, 22–26, 28, 30, 32, 33</u>	YES
	Claims <u>1–12, 14, 16–21, 27, 29, 31</u>	NO
Industrial applicability (IA)	Claims <u>1–33</u>	YES
	Claims _____	NO

## 2. Citations and explanations (Rule 70.7)

1 This report makes reference to the following documents:

D1: US 2002/121323 A1 (TARASINSKI NICOLAI)  
5 September 2002 (2002-09-05)

D2: DE 102 47 216 A (CATERPILLAR INC) 10  
July 2003 (2003-07-10)

D3: [Online] 20 August 1999 (1999-08-20),  
XP002309621 found on the Internet:  
URL:<http://home.arcor.de/hildst/VDI0899g.html>> [found on 2004-12-08] VDI-Nachrichten: "Turbolader machen mobil"

D4: [Online] February 2003 (2003-02),  
XP002309653 found on the Internet: URL:  
<http://www.turbos.bwauto.com/de/service/library.asp>> [found on 2004-12-08];  
"Neue Erkenntnisse bei der Entwicklung von Aufladesystemen fur PKW-Motoren"

## 2 INDEPENDENT CLAIM 1

2.1 The present application does not meet the requirements of PCT Article 33(1), because the subject matter of claim 1 does not

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**International application No.  
PCT/EP2004/010089**Box No. V** **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

involve an inventive step within the meaning of PCT Article 33(3).

2.1.1 D1 is regarded as the prior art closest to the subject matter of claim 1. It discloses (the reference signs in parentheses refer to said document):

a tire pressure regulating system according to the preamble of claim 1 (claim 1; drawing 1).

2.1.2 Therefore, the subject matter of claim 1 differs from that known from D1 in that the turbocharger has a variable geometry.

2.1.3 The problem to be solved by the present invention can be regarded as that of improving the turbocharger in D1 such that it makes sufficient air power available to the tire pressure regulating system throughout its entire RPM range.

2.1.4 The solution to this problem as proposed in claim 1 of the present application involves an inventive step (PCT Article 33(3)) for the following reasons:

varying the geometry in turbochargers in order to eliminate what is known as the "turbo hole" in the lower RPM range is well known from the prior art. D3 describes an exhaust gas turbocharger having turbine

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Box No. V      **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

geometry that can be varied using guide vane adjustment (VTG turbocharger).

D4 also discloses (on the bottom of page 2) a variable turbine geometry that enables the entire range of characteristics of the turbine and compressor to be used, which makes it possible to achieve a high boost pressure even if the number of RPMs is low and the quantity of exhaust is minimal.

2.1.5 Therefore, a person skilled in the art would combine all of the features disclosed in D1 and D3 or D1 and D4 in order to solve the problem of interest, without thereby being inventive. Consequently, the solution proposed in independent claim 1 cannot be regarded as inventive (PCT Article 33(3)).

3      DEPENDENT CLAIMS 2-12, 14, 16-21, 27, 29,  
AND 31

Claims 2-12, 14, 16-21, 27, 29, and 31 contain no features that, in combination with the features of any claim to which they refer, meet the PCT requirements for novelty and inventive step. See the text passages indicated in the search report.

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**International application No.  
PCT/EP2004/010089**Box No. VII      Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

In order to meet the requirements of PCT Rule 5.1(a)(ii), the description should cite documents D1 and D4 and outline in brief the relevant prior art contained therein.